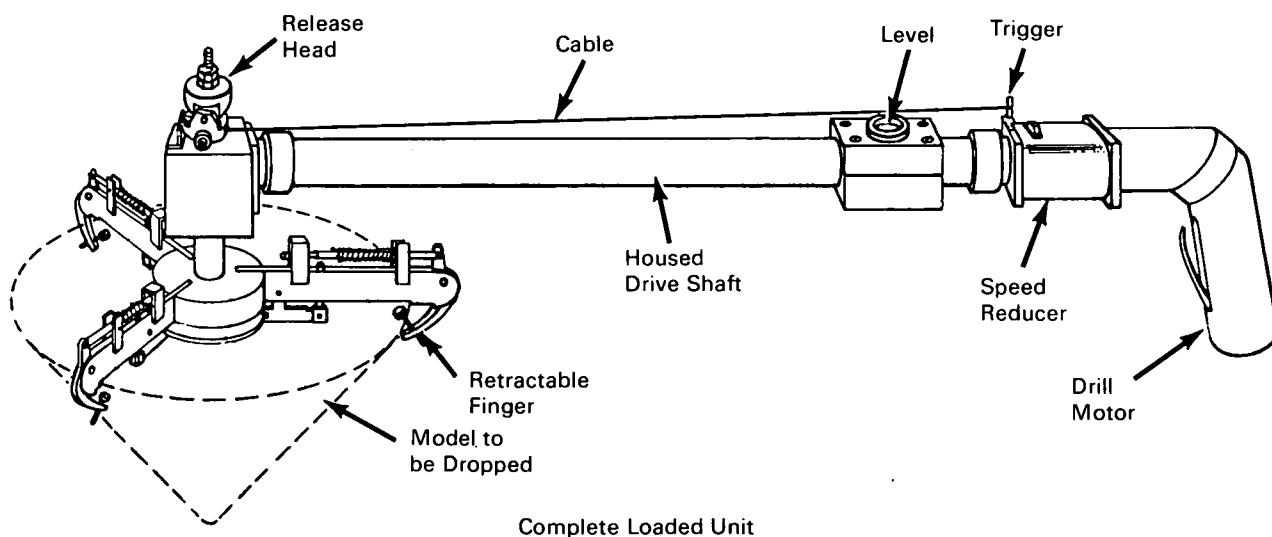


NASA TECH BRIEF



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Controlled Release of Free-Falling Test Models



The behavior of test models dropped at various angles of attack and rates of spin has been examined. Hitherto, such models have been spun and tossed by hand.

A novel releasing device (see fig.) is powered by a drill motor through an adjustable speed reducer. Adjustably mounted on the housing of an extensible drive shaft is a bubble level. The extreme end of the shaft's housing (≤ 12 -ft long in four 3-ft lengths in the experimental unit) carries the spinning release head which has three retractable spring-loaded fingers to hold the model until it is dropped. The fingers are retracted by a cable triggered at the motor end of the unit.

With the model to be dropped clamped by the fin-

gers and with the drive shaft extended to the correct length the unit is inserted in the tunnel. The desired speed of rotation is selected, and the level is moved about the housing, to the desired angle of attack, and reset. The motor is started and, with the bubble visibly centered, the model is dropped by manual triggering of the cable.

Note:

Requests for further information may be directed to:

Technology Utilization Officer
NASA Pasadena Office
4800 Oak Grove Drive
Pasadena, California 91103
Reference: TSP70-10077

(continued overleaf)

Patent status:

Inquiries about obtaining rights for the commercial use of this invention may be made to NASA, Code GP, Washington, D.C. 20546.

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